WE CLAIM:

1. A device for processing sample material, the device comprising:

a substrate comprising first and second major surfaces and a hub defining a central axis of rotation for the substrate;

an unvented channel having an inner radius and outer radius, said channel adapted to fractionate a sample material; and

at least one compartment connection structure in contact with said outer radius of said unvented channel.

2. The device of claim 1, wherein said substrate comprises a polymer.

3. The device of claim 1, wherein said substrate comprises polyolefins, polypropylene, polycarbonates, high-density polyethylene, polymethyl methacrylates, polystyrene, Teflon®, polysiloxanes, or a combination thereof.

4. The device of claim 1, wherein said substrate is about 0.1 mm to about 100 mm thick.

5. The device of claim 1, wherein said substrate is circular in shape and a diameter of about 50 mm to about 500 mm.

6. The device of claim 1, wherein said unvented channel comprises a plurality of connected compartments.

7. The device of claim 6, wherein each of said plurality of connected compartments has a volume of about 100 microliter.

8. The device of claim 1, wherein said unvented channel is arc shaped.

9. The device of claim 8, wherein said unvented channel has an arc length of about 180 degrees or more.

10. The device of claim 1, further comprising at least one integrated electrode.

11. The device of claim 10, wherein said at least one integrated electrode is in connection with said unvented channel.

12. The device of claim 11, wherein said integrated electrode comprises a first piece in connection with said substrate and a second piece that is releasable attached to said first piece.

13. The device of claim 10, wherein said integrated electrode comprises a metallic film.

14. The device of claim 13, wherein said metallic film comprises platinum.

15. The device of claim 1, further comprising at least one cover film.

16. The device of claim 1, further comprising a plurality of compartment connection structures in contact with said outer radius of said unvented channel.

17. The device of claim 16, further comprising a plurality of chambers, each chamber defining a volume for containing sample material.

18. The device of claim 17, wherein said plurality of chambers contain reagents.

19. The device of claim 17, wherein said plurality of chambers are connected to said plurality of compartment connection structures.

20. The device of claim 19, further comprising at least one chamber valve.

21. The device of claim 20, wherein said chamber valve functions through laser ablation of at least a portion of said chamber valve.

22. The device of claim 19, further comprising a plurality of electrophoresis channels, wherein the plurality of electrophoresis channels extend generally radially outward relative to the axis of rotation of the substrate.

23. The device of claim 22, further comprising a plurality of chamber connection structures located between at least one chamber and at least one electrophoresis channel, and at least one chamber valve.

24. The device of claim 23, wherein said substrate comprises a material that absorbs laser energy.

25. The device of claim 24, wherein said material that absorbs energy comprises carbon-loaded polymer.

26. The device of claim 24, wherein said chamber valve functions through laser ablation of at least a portion of said chamber valve.

27. The device of claim 23, further comprising a plurality of sample preparation chambers, each sample preparation chamber defining a volume for containing sample material.

28. The device of claim 27, further comprising a preparation connection structure located between the at least one electrophoresis channel and at least one sample preparation chamber, and a valve structure.

29. The device of claim 27, wherein the plurality of sample preparation chambers contain reagents for protein digestion.

30. The device of claim 27, wherein the plurality of sample preparation chambers are configured to be heated.

31. The device of claim 1, wherein the wetablility of the surface of said unvented channel is different from that of the bulk of the substrate material coated with a compound that improves the wettability of the unvented channel.

32. The device of claim 1, wherein the surface of said unvented channel has been modified is surface modified to create an immobilized pH gradient.

33. The device of claim 1, wherein the distance between said central axis and said outer radius oscillates.

34. The device of claim 1, wherein the distance between said central axis and said inner radius oscillates.

35. A device for processing sample material, the device comprising:

a substrate comprising first and second major surfaces and a hub defining a central axis of rotation for the substrate;

an unvented channel having an inner radius and outer radius, said channel adapted to fractionate said sample material.

36. A device comprising:

a substrate comprising first and second major surfaces and a hub defining a central axis of rotation for the substrate;

a channel having an inner and outer radius, said channel comprising a plurality of connected compartments; and

a plurality of compartment connection structures in contact with said radius of said channel.

37. A method of performing iso-electric focusing of a sample containing analytes, said method comprising the steps of:

(a.) loading a sample onto a device, the device comprising a substrate having first and second major surfaces and a hub defining a central axis of rotation for the substrate; an unvented channel having an inner radius and outer radius and first and second sample wells; and a plurality of compartment connection structures, wherein said compartment connection structures are in contact with said outer radius of said unvented channel, wherein the sample is loaded into the first or second sample well;

(b.) allowing the sample to enter the unvented channel of the device;

(c.) adding anolyte solution to the first sample well of the device;

(d.) adding catholyte solution to the second sample well of the device;

(e.) contacting electrodes with the solutions in the sample wells;

(f.) applying a voltage to the electrodes; and

(g.) rotating the device to cause the solutions to move from the unvented channel to the plurality of compartment connection structures.

38. The method of claim 37, wherein valves in the plurality of compartment connection structures are opened before the device is rotated.

39. The method of claim 37, wherein said solutions move through the plurality of compartment connection structures to a plurality of chambers.

40. The method of claim 37, wherein said chambers contain chemical reagents.

41. The method of claim 37, wherein said chambers containing the solutions and the reagents are heated.

42. A method of fractionating an analyte sample, said method comprising the steps of:

loading said sample into a device of claim 24, and

rotating said device to cause said sample to fractionate.

43. A method of processing a solution containing analytes, said method comprising the steps of:

(a.) loading the solution into a device, said device comprising (i) a substrate having first and second major surfaces and a hub defining a central axis of rotation for the substrate, and (ii) an unvented channel within said substrate;

(b.) allowing the solution to enter the unvented channel;

(c.) separating the analytes of the solution; and

(d.) applying a centrifugal force to the solution, thereby fractionating said solution.

44. The method of claim 43, wherein said analytes are separate by isoelectric focusing.

45. A device for processing sample material, the device comprising:

a substrate comprising first and second major surfaces and at least one channel;

a sample well for holding a fluid, said well connected to said channel;

an integrated electrode configured to make contact with said fluid when present in said device; and

a contact point outside of said well that permits delivery of an electric current to said electrode.